

# Exhibit 4

Excerpts from the Expert Report of  
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MS, MPH, MHA, RS, CSP, DLAAS

Workhouse Jail Inspection Report

Medium Security Institution

St. Louis, Missouri

Re: Cody et. al. v. City of St. Louis

Case no. 4:17-cv 2707-AGF

Submitted to:

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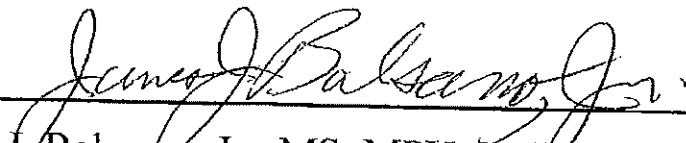
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On October 16, 2019

 10/16/2019  
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## Environmental Health/Sanitation Expert Report of the Inspection of the Medium Security Institution (“the Workhouse”) Jail Facility in St. Louis, Missouri

This report was prepared by Mr. James J. Balsamo, Jr., MS, MPH, MHA, R.S., CHMM, CP-FS, CSP, CP-FS, and DLAAS and submitted on October 16, 2019 to ArchCity Defenders, Jacqueline Kutnik-Bauder, Managing Attorney, pursuant to Fed. R. Civ. P. 26(a) (2) (B).

### SECTION 1. INTRODUCTION:

I, James J. Balsamo, Jr., a professional environmental health and safety consultant with the firm of R.W. Powitz and Associates, have been retained by ArchCity Defenders, Inc. regarding case No. 4:17-cv-02707 AGF, *Cody et al. v. City of St. Louis* to provide expert witness services in this case. I have been tasked to review appropriate complaints, reports, declarations, policies and other documents regarding the Workhouse, perform inspection(s) of the Workhouse, prepare an Expert Affidavit report detailing my findings of the living conditions noted during my inspection(s) of the Workhouse, and provide expert testimony as needed. The scope of my expert opinion relates to the claims asserted in the Plaintiffs’ First Amended Complaint, which includes:

Life Safety;  
Overall pest control;  
Lighting;  
General Sanitation and Air Velocity/Quality in the housing area;  
Heating and cooling;  
Food Safety and Sanitation Practices;  
Laundry Sanitation and Clothing/Bedding Exchange Policies and Practices;  
Personal Hygiene and Toilet /Shower/Cell Sanitation;  
Medical Treatment Facility and Sanitation; and  
Mold/Mildew/Moisture/Leakage Issues.

My written report has been prepared pursuant to Rule 26 of the Federal Rules of Civil Procedure.

#### Summary of Findings:

The areas inspected included the laundry, inmate housing areas (dormitories, cells, beds/bedding, toilets, lavatories, walls, floors, ceilings and air vents), shower areas, janitor sinks, day room areas, janitorial supplies storage areas, food storage and preparation (kitchen) areas and others ancillary areas in the Workhouse.

My observations during my inspection and review of the documents provided to me by ArchCity Defenders’ attorneys regarding the environmental health and safety conditions of confinement lead me to conclude that as currently operated, the Workhouse presents a health

and safety risk to the inmates housed there. The facility must change its operations and the facility physical plant must be brought up to reasonable safe and sanitary levels.

Because my inspection was limited to one day, I was not able to fully inspect the food service facility and operation nor adequately inspect the facility for fire safety/life safety issues. I also needed time to discuss with a knowledgeable person how the HVAC System works at this facility, and there was just no time to get an explanation of the system or systems utilized at the Workhouse before the inspection was ended by facility staff. Thus, my opinions are limited to the documents I reviewed and the physical inspections of those areas I was allowed into. It is my understanding that a motion has been filed by ArchCity Defenders requesting that I be allowed to complete my inspection. If I am allowed to complete my inspection, I will provide a supplement to this report including any additions or changes to my expert opinion resulting from that inspection.

In summary fashion, as currently operated, the Workhouse presents a significant environmental health and safety risk to the inmates housed there and this must change in order to bring this facility up to a reasonably healthy, safe and sanitary level. The jail must correct all of its inadequate lighting levels which were generally below American Correctional Association (ACA) and American Public Health Association (APHA) minimum levels, (See Standards on page 9 of this report), inadequate ventilation/temperatures as per ASHRAE Standards thereby putting inmates health at serious risk (see the National Weather Service "High Heat Index" discussion on pages 48-51) and exceptionally poor housekeeping conditions and practices, especially with regards to the seriously unsafe and unhealthy conditions in the kitchen, showers and sanitary fixtures in this jail. There were some glaring deficiencies noted in the medical area that I inspected which are outlined in the body of this document. Safety and sanitation in inmate housing areas, cells and dormitories, were found for the most part not to meet APHA Standards in that they were found to be insanitary and were not adequately ventilated and illuminated for inmate health and sanitation purposes. The housing shower areas are dirty, inadequately ventilated, covered with soap scum, and apparently contain mold, all of which jeopardizes the health and safety of the inmates and does not meet APHA Standards. (See page 11 of this report.) The showers are generally unsafe due to their physical condition (missing floor tiles and slippery surface condition) which could contribute to slips and fall and exposure to mold and other microorganisms. There is inadequate upkeep by maintenance staff of the showers and sanitary fixtures including the vents in these showers which are corroded and, in some cases, missing. The sprinkler heads were noted in many places as having been painted over, which could impair their proper operation in emergency situations; further, they are not protected from tampering and may provide a hanging point risk for inmates. In many areas, the hot water temperatures necessary for proper personal hygiene in showers and lavatories were found to be below acceptable American Correctional Association (ACA) and American Public Health Association (APHA) minimum levels. (See page 11 of this report). In some housing areas the number of inoperative shower heads and lavatories caused the number of fixtures necessary for inmate use to fall below acceptable health standards as per ACA and APHA Standards. (See page 11 of this report). The poor physical condition of the refrigerators and freezer units, the inadequate automatic dishwashing machine sanitization of trays, dishes and utensils, the

observed presence of insects, the years of documented Health Department rodent complaints, the observed unclean and insanitary conditions noted in the Hobart mixing bowl, the Dyon Mixer, and the Bloemhof Unit all indicate that this facility is not being operated in a safe and healthy manner. Overall not having in place adequate policies and procedures and proper training of correctional and dietary staff contributes greatly to the overall very poor and unhealthy inmate environment in this aging and dilapidating physical structure. A full summary of my findings can be found on pages 51-64 of this report and my conclusions regarding this facility from an environmental health and safety perspective can be found on pages 64-68 of this report.

#### Inspection Security Clearance Comments:

On October 30, 2018, I arrived at 9:00 AM to inspect the Workhouse accompanied by Attorneys Sima Atri and other attorneys and staff from ArchCity Defenders, Inc. I had provided ArchCity, prior to my arrival in St. Louis, a list of my environmental health and safety monitoring equipment and supplies needed to accomplish my task of inspecting the Workhouse. This list was used by at least three Workhouse correctional staff and at least one other non-ArchCity employee to inspect the equipment in my equipment bag which were to be used by me in my inspection process. Ostensibly for security purposes, these correctional officers proceeded to take apart the entire bag zipper by zipper and empty all contents on the table in a meeting room where we were all sitting. They then began to count every cotton swab, cotton ball and alcohol containing cotton pad. They counted each piece of the test papers of the three types of sanitization test strips used to determine quaternary ammonium compounds, chlorine and bromine sanitization chemicals that were being used to sanitize equipment and utensils in this jail facility. The supplies also measured the use concentration of these sanitization chemicals in order to determine if the strength/concentration was adequate for proper sanitization purposes. The corrections officers asked what each tool was in the bag except for the 10 small electronic flat head screw drivers, flashlight, camera and extra equipment batteries. I tried to explain what each item was, how it functioned, and what it would be used for in determining certain environmental health and safety conditions that I might encounter during my inspection. I also explained that because of unavailability at the time I prepared my equipment bag for this inspection, certain brand named pieces of equipment that I earlier listed on the Equipment Inventory Sheet provided to ArchCity Defenders' attorneys had to be substituted by other equipment or supplies that served the same purpose from other brand named companies. As they checked the bag's contents they were replacing the items in the bag in a haphazard manner, and I asked them if they would mind not replacing the contents back in the bag and allow me to do so after they had completed their task. This was because I had placed the items in certain pouches and subdivided sections of the equipment bag to facilitate my inspection activities in various areas of the jail such as laundry, food service kitchen, housing and janitorial areas. They agreed to do so. They indicated to me that they did not find two items in the bag that I had listed on the equipment list they were using to check the content of my inspection bag. I told them if they could not find them, it may be possible that I either had substituted pieces of equipment or may have inadvertently left them at my office. Before they returned the bag and contents to me, I witnessed the counting of each one of the alcohol swabs, cotton tip swabs, cotton balls and

sanitization test strips a second time and actually some for a third time. The list of equipment and supplies they found in the bag along with their correctional staff notes was signed by a Major T. Harry, Florence [unreadable last name], and one other illegible name. I was also asked to sign the paper and I did so. They provided me with a copy of that document. They then left the room to allow me time to orderly place the equipment and supplies back in the bag. As I was zipping up the bag and putting all the equipment and supplies back into their proper location in the equipment bag, I noticed that one of the alleged missing pieces of equipment (EXTECH RH/TEMP Pen 44550) was clearly visible in the test kit. It had not been inventoried/found and/or removed from the bag even after their intense and exhaustive inspection of that bag. I showed this to the ArchCity attorney and staff personnel at that time.

This process took over 50 minutes which certainly delayed the inspection by almost an hour. It may not be appropriate to note this as I am sure the facility personnel were just doing their security due diligence, but I have inspected many local, county, and state prisons, jails, mental health facilities, juvenile detention facilities and even several prison death row areas and I can state without any hesitation, I have never been subjected to such actions in my nearly 30 years of professional work in correctional facilities. Please note that I always willingly cooperate as I realize security is paramount in correctional facilities and is in the best interest of everyone, but this one time was very different and seemingly almost contentious on the part of this facility and personnel. More importantly, these actions delayed my inspections activities which resulted in my not having time to complete all the activities needed for a complete inspection of this facility.

#### Qualifications and Experience:

I have some 50 years of experience in environmental health and hold multiple professional credentials in environmental health and its many specialized areas of competence. I have earned a B.S., M.S., MPH, and MHA degrees in biology, sciences, and public/environmental health. I have been licensed by the State of Louisiana as a Registered Sanitarian (RS) since 1969 and hold professional credentials such as the Registered Professional Sanitarian (R.S.) and Certified Professional – Food Safety (CP-FS) by the National Environmental Health Association, with Certification as a Diplomate Laureate of the American Academy of Sanitarians. I also hold the Certified Hazardous Materials Manager (CHMM) credential and the Certified Safety Professional (CSP) credential. For a list of all others professional credentials please see **Appendix D.**

I worked for 4 years as a State of Louisiana Licensed Sanitarian (R.S.) with the New Orleans Health Department where I performed food service training and environmental health inspections of restaurants, recreational facilities, bars, massage parlors, hospitals, nursing homes, day care centers, and correctional facilities in New Orleans, Louisiana. I served 6 years in the U.S. Army Reserves as a Medical Corpsman and then Senior Medical Specialist in hospitals in Baton Rouge and New Orleans, Louisiana and Fitzsimons Army General Hospital in Denver, Colorado. I also inspected Army food service facilities while in the Army Reserves. I worked one year part-time as a phlebotomist at a plasmapheresis center and later 3 years as a weekend drug study worker/coordinator for Tulane Medical School, Department of Therapeutics.



From 1974 to 1980, I taught courses in Environmental Health Monitoring, Institutional Environmental Health and Safety, Food Service Sanitation and Hospital Environmental Health and Safety at Delgado Community College in New Orleans. I even taught through Delgado several Food Service Sanitation Courses for credit to prisoners serving sentences inside the New Orleans Parish Prison Facility. I routinely inspected this Orleans Parish Prison facility, its Work Release Center and the New Orleans Juvenile Detention Center as part of my Sanitarian duties at the New Orleans Health Department from 1969 - 1973.

In 1973, I joined Tulane University's Office of Environmental Health and Safety (OEHS) as Assistant Director. I served from 1976 to 1979 as the first Environmental Health and Safety Officer at the newly opened Tulane University Hospital. In 1979 I accepted the position of Director of the Tulane OEHS where I remained until I retired as Director Emeritus in June, 2014. From 1975 until 2014, I was an Adjunct Instructor and/or Clinical Assistant Professor of Public Health, lecturing in and teaching courses such as Institutional Environmental Health and Safety, Current Issues in Industrial Hygiene and Safety, Introduction to Environmental Health and Environmental Health in Developing Countries at the Tulane University School of Public Health and Tropical Medicine (SPH&TM) where I am currently a part-time lecturer as needed in the Distance Learning Program.

In 1988 I began my private consulting practice as a Sanitarian/Environmental Health and Safety Consultant/Expert with the U.S. Department of Justice (USDOJ) and other private clients involving correctional and mental health environments. Over the years, I have been contracted by governmental agencies, NGOs and private attorneys to work on behalf of both plaintiffs and defendants and this continues today. I have inspected some 80 jails (many multiple times), prisons, juvenile facilities, schools for the developmentally disabled, mental health hospitals and residential treatment facilities in some 22 continental US states plus the islands of St. Croix and St. Thomas, U.S. Virgin Islands, and the islands of Guam, Saipan, Rota, and Tinian. I have served as a Court Appointed Third Party Expert for a Michigan prison case, an Expert for a Court Appointed Master in Washington, D.C., a joint consultant (state and federal) in Oklahoma, and an expert witness and subject matter expert in other cases. I have been accepted in two Municipal Civil and 7 different Federal Courts testifying multiple times in court, in court ordered status hearings and case status conferences as a testifying expert witness. I served as a Subject Matter Expert in a study of "Conditions of Confinement" for USDOJ Federal Immigration Prisons. **See Appendix C** for a complete consultant correctional case list.

In 1974 and 1984, I served as President of the Louisiana Environmental Health Association and later served as Vice-President, President-Elect and President of the National Environmental Health Association. I have also served as Chair and Board Member of the American Academy of Sanitarians. I was the Chair of the Board of Examiners for Sanitarians in Louisiana for 8 years.

Currently and for the last 12 years I have served as a member on the National Sanitation Foundation International (NSF) Council of Public Health Consultants (Chair-2015) and as a member on the Underwriter's Laboratory (UL) Technical Committee for Infrared Thermometers Used in Food Facilities.



Please refer to my curriculum vitae (**Appendix D**) for additional information regarding service on professional organization committees, offices held, other certifications, environmental health technical and leadership awards, publications, presentations and continuing education courses.

Compensation:

I am being compensated for my work at the rate of \$1000.00 per 8 hr. day spent on consultant services including inspections, document reviews, report preparations, and communication, via voice or electronic, with the contracting authority. Travel and pass through actual expenses are reimbursed. Depositions and interrogatories are completed at the rate of \$1,500.00 per day. Expert Witness court testimony rates are \$2,000.00 per day. My compensation in this case is not in any manner related to the content of my report or the outcome of this litigation.

Purpose and Scope:

I have been retained as a consultant/expert in environmental health and safety by ArchCity Defenders, Inc. to review Plaintiffs' complaint documents, Workhouse environmental health and safety policies and procedures, other related inspections by outside agencies and other pertinent documents related to the Workhouse facility in St. Louis, Missouri. My retainer is to review reports, inspect the Workhouse, prepare a detailed written report of my findings pursuant to Rule 26 of the Federal Rules of Civil Procedure and possibly testify at a deposition and/or other legal proceedings associated with this case.

Documents, Materials and Standards Reviewed and Considered for my Report:

1. Plaintiffs' First Amended Class Action Complaint ECF Doc. # 22, pages 1-43
2. Pro-Lab Analysis Report for COC # 1187079, November 21, 2018, and City 7527-9280 (Mold) documents
3. City of St. Louis Department of Health Environmental Health Inspection Reports and Emails, and reports pertaining to the City of St. Louis Health Department Inspection Reports: CITY 003807-003816, 003822-003843, 000351-000353, 003895, 001120-001121, 0009317-0009318, 0013684-0013690, 003596-003601
4. City of St. Louis Department of Health, Environmental Health Inspection Reports and Emails, and reports pertaining to inspection reports done by The City of St. Louis: Bates Numbers 26941-26951, 27597-27601, 16126-16128, 20631-20639, 26941-26951, 19736-19743, 35199-35201, 20376, 16126-16128
5. APHA Standards for Health Services in Correctional Institutions, 2003
6. ACA Standards for Small Jails, Copyright 1989
7. ACA Standards for Adult Correctional Institutions, 4<sup>th</sup> Edition January 2003
8. FDA 2013 National Food Code
9. ASHRAE Standard, Ventilation for Acceptable Indoor Air Quality STD. 6.2.1 2007
10. ASHRAE Standard, Thermal Environmental Conditions for Human Occupancy, STD. 55-1992 and Addendum 55a-1995
11. Invade Bio-Drain Cleaner; Product Labels

- d. The protective lead apron noted hanging in this room must be routinely examined by x-ray to determine if it is still intact and does not have any cracks or breaks which could subject inmate patients and/or operators of the x-ray unit to unnecessary x-ray dosage. There should be a written assurance report that documents this action. (Photo # 4)

3. Exam Room # 1

- a. The hot water at the lavatory in this room used for handwashing registered 92 degrees Fahrenheit after running the water for 2 minutes. It should be between 100 and 120 degrees for proper personal hygiene handwashing purposes. This needs to be corrected to meet minimum APHA/ACA Standards.
- b. The handwashing lavatory in this exam room needs to be provided with a foot, knee or elbow operated faucet handles (controls) for infection control purposes. (CDC Guidelines for Infection Control).

4. Medication Room

The thermometer in the medication refrigerator within this room registered 39 degrees Fahrenheit, however, the calibrated thermometer I used in my inspection registered 48 degrees Fahrenheit after being left in the closed medication refrigerator. The accuracy of this facility's thermometer in the medical refrigerator is in question and needs to be verified by comparing it to a calibrated thermometer. The medication refrigerator thermometer must be replaced if its accuracy cannot be ascertained. Medicine's life expectancy and potency may be shortened if proper storage temperatures are not maintained. CDC recommends storage between 35-46 degrees Fahrenheit with an average temperature of 40 degrees Fahrenheit. Some medicine storage temperatures may need to be stored at different temperatures and temperatures in the medicine refrigerator temperature should be checked at least twice daily.

## SECTION 5. HEAT INDEX (HI) – Heat Issues in MSI:

A. Explanation of the Use of the Heat Index (HI) for Inmate Safety/Health

1. Excessively high temperatures can be harmful to all inmates and especially dangerous for inmates with underlying medical conditions and those taking certain prescribed medications. The National Weather Service publishes a chart (see immediately below) that utilizes the Relative Humidity Levels (% RH) and

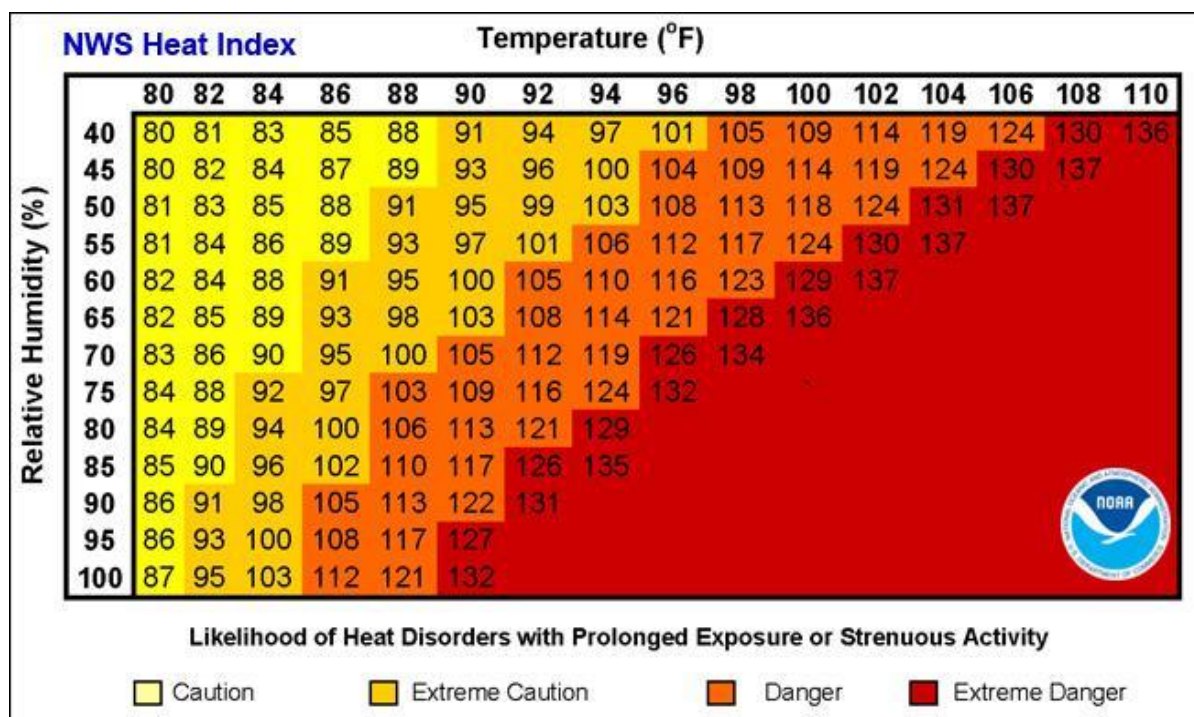
ambient temperature levels (Degrees Fahrenheit, “F”) for a certain date and time to determine a corresponding Heat Index (HI) number or value. The Heat Index (HI) Temperature as noted in the interior of the chart below is determined by finding the intersection point (HI) of the ambient temperature on the horizontal axis and the corresponding relative humidity on the vertical axis. The selected intersection number (HI) is in either the yellow, light orange, dark orange and/or red sections of the chart below. These colors and categories represent the likelihood of heat disorders due to high heating levels (i.e. Heat Stress Effect on the body):

Yellow = Caution

Light Orange = Extreme Caution

Dark Orange = Danger

Red = Extreme Danger



This Heat Index (HI) number or value (color) from the chart above is applied to the chart below which correlates to the following harmful effects on the body and then applied to the Classification Scheme noted in the following chart:

<b>Classification</b>	<b>Heat Index</b>	<b>Effect on the body</b>
<b>Caution</b>	<b>80°F - 90°F</b>	<b>Fatigue possible with prolonged exposure and/or physical activity</b>
<b>Extreme Caution</b>	<b>90°F - 103°F</b>	<b>Heat stroke, heat cramps, or heat exhaustion possible with prolonged exposure and/or physical activity</b>
<b>Danger</b>	<b>103°F - 124°F</b>	<b>Heat cramps or heat exhaustion likely, and heat stroke possible with prolonged exposure and/or physical activity</b>
<b>Extreme Danger</b>	<b>125°F or higher</b>	<b>Heat stroke highly likely</b>

I reviewed temperatures records provided to me by ArchCity Defenders' attorneys which were recorded by Workhouse personnel in various areas of the Workhouse facility for all shifts in the hottest times of the year: June, July, and August of 2016 and 2017. It is my understanding that although temperature records after 2017 have been requested by ArchCity, none have been provided to date. I therefore chose to analyze the temperature recorded in July 2017. I also consulted the Weather History KSTL - Lambert St. Louis International Airport records for St. Louis, Missouri humidity readings corresponding to the same dates the temperature readings recorded by Workhouse personnel. I applied these temperature and historical humidity readings for the same dates to the National Weather Service's Heat Index Chart to determine the Heat Index (HI) levels or values at the Workhouse at various times and dates. During my recent inspection (10-30-2018) at the Workhouse, I also took temperature and humidity readings with a direct reading instrument even though October 30 is not considered as one of the hottest times of the year. See the Heat Index Tables in APPENDIX F, (HI-1 through HI-6) for Heat Index readings and their corresponding Classification Levels for certain dates and shifts in the Workhouse.

Of note is the fact that I used some 145 temperature readings taken by Workhouse personnel over 9 days on 3 shifts in July of 2017 along with the historical humidity levels corresponding to the dates these temperature readings were taken by Workhouse personnel. The 145 Heat Index (HI) values were placed in one of four classification categories noted in the chart above. The percentages of those 145 HI values (see APPENDIX F (HI-1 to HI-6)) that fell into one of the 4 classification categories or levels (Extreme Danger, Danger, Extreme Caution and Caution) were calculated.

The numbers and percentages in each classification category are noted below:

EXTREME DANGER..... 60/145 readings or 41% were in this category.

DANGER..... 60/145 readings or 41% were in this category.

EXTREME CAUTION..... 23/145 readings or 16% were in this category.

CAUTION or No Hazard..... 2/145 readings or 2% were in this category.

This indicates that 82% of the times the temperature readings, as noted in the Workhouse internal records, presented a dangerous to extremely dangerous environment for the general population inmates in the Workhouse. An even higher risk was created for those inmates in these environments with age or underlying medical conditions such as heart conditions, mental illnesses, alcoholism, hypertension, etc. Inmates taking certain medications-- such as those on blood pressure, psychotropic, and other medications-- are at higher risk from high environmental temperatures because these medications can interfere with thermoregulation or the body's ability to regulate internal body temperatures. This can pose significant harm to such inmates causing them to develop heat cramps, heat exhaustion and the more life-threatening condition known as heat stroke. This facility must have a written plan to capture the names of those inmates at the highest risk of these noted conditions and develop a tiered plan of action when the Heat Index reaches 80 degrees Fahrenheit.

This plan could include the following: (1) allowing showers ad lib, (2) providing on a very frequent basis ice water, (3) allowing lighter clothing (shorts and T-shirts) to be worn in cell or dorm areas, (4) and /or providing inmates with respite areas (air conditioned cooling areas) for a number of hours in the hottest portion of the day and nights when the Heat Index is very high. I was not provided such documents or policies covering these items when these conditions exist. These actions are required as per APHA Standards. This must be carefully planned and executed for the health of the inmates. In reading some documentation, including The First Amended Class Action Complaint (page 27) provided by ArchCity Defenders, some inmate deaths were said to possibly have been caused by high environmental temperatures in the cells/housing areas.

My inspection findings revealed that the ventilation in the Workhouse was not adequate and mostly not working. Air flow in most locations—including the showers, toilets, dorms and cells did not provide any air flow movement, or at best was impaired. This contributes to the higher ambient temperatures and humidity levels resulting in high Heat Index levels noted previously in this report. Proper ventilation with temperature and humidity controls would, as required by both APHA and ACA Standards, help to reduce the ambient temperature and humidity in this facility. Consequently, this would lower the high heat index levels experienced and documented in the Workhouse which has and will continue to jeopardize the health and safety of the inmates and correctional staff. In particular, ACA Standard (4-4153) states that temperature and humidity should be capable of being mechanically raised or lowered to acceptable comfort levels. In my judgement, after having measured the temperature and humidity levels, viewed the ventilation system's physical condition in the housing areas, and using this facilities own temperature readings provided for my review, this is not being done.

## **SECTION 6. INSPECTION SUMMARY:**

### **A. Ventilation**

Several thermometers in the refrigeration units in the kitchen were found to be broken and others were found not to be accurately indicating proper food storage temperatures. The thermometer for cooler #4 indicated a temperature of 36 degrees Fahrenheit, however, the milk in cartons measured 40 degrees which indicates the thermometer is inaccurate. Even though 40 degrees is still a safe storage temperature, apparently maintenance personnel either did not check it or did nothing to replace the thermometer with a properly calibrated indicating thermometer. An operating dish/utensil washer was being used despite the fact that the dish/ tray surfaces were not reaching sanitizing temperatures when I checked the unit. The temperature gauge on the final rinse cycle indicated that proper sanitizing temperatures were being reached when in fact, the dish/tray surfaces never reached an adequate sanitizing temperature of 160 degrees Fahrenheit as determined by using Temperature Sensitive Strips attached to the surface of the dishes/trays being pushed through the machine. Apparently, the reason for the dishes/trays not being properly sanitized had not been investigated or corrected prior to my inspection. This jeopardizes the health of the inmates at this facility as it subjects them to possible foodborne disease outbreaks and is not in compliance with the FDA Model Code and all sanitary codes of which I am familiar.

5. Hot water at the lavatory in Exam room #1 was below acceptable APHA and ACA levels for good personal hygiene and infection control purposes. The handwashing sinks in Exam Room # 1 need to have a foot, knee or elbow operated faucet handles installed for infection control purposes as per APHA Standards and good infection control practices.
6. The thermometer in the medical refrigerator in the medication room in the medical unit registered 39 degrees Fahrenheit; however, this thermometer is not accurately registering the actual internal air temperature in this refrigerator. The actual internal air temperature in this unit was 48 degrees Fahrenheit which was determined by measuring the temperature in this unit using a calibrated thermometer. Maintenance personnel should be able to check these units with calibrated thermometers to identify such situations which could affect the medications being stored in these types of refrigerators. This medical storage refrigerator does not meet CDC recommendations which is the range of 36–46 degrees Fahrenheit with 40 degrees being average.
7. Instead of repairing leaking sinks such as one in the kitchen, the staff took time to place a bucket under the sink and label it “Drip Catcher. Do Not Remove.” Water leaks also seem to be tolerated in the kitchen mop bucket storage and chemical dispensing area, as well as around the automatic dishwasher in this kitchen which provides an ideal environment for the proliferation of insects and rodents.



and sanitary. I was told that this kitchen is being utilized only as a bakery and that meals are prepared at another facility, CJC, and trayed up in this kitchen for distribution throughout the Workhouse. However, in a memorandum dated May 23, 2018 (CITY\_00027585) from Commissioner Glass, he states that the kitchen at MSI is in full use. It is therefore unclear whether this kitchen being in full use for food preparation or just for baking goods and distributing foods prepared at CJC's for Workhouse inmate consumption. Regardless, if the kitchen is being fully utilized or not, the entire kitchen area must still be clean and sanitary, with properly operating and clean equipment, free of any leaks, insects and rodents. This kitchen in the Workhouse is structurally and operationally not suitable for food preparation unless some immediate and effective improvements to the facility are undertaken and only after the Health Department, State and City fire officials (AHJ) and other building, mechanical and plumbing code officials have approved plans to fully renovate the kitchen at the Workhouse.

4. The area outside the kitchen and just before exiting onto the loading dock area needs to be kept clean, sanitary, orderly and not be attractive and accessible to insects, rodents and other vermin.
5. Apparently on or about November 8, 2016 there was a boiler issue which temporarily required the closure of the laundry until the boiler was properly repaired. A protocol was put into place that required all dirty laundry except inmate personal items be gathered for pick up. The protocol (CITY\_0031675-0031676) which I reviewed indicated that soiled laundry would be picked up by the CBM food vendor and taken to CJC for laundering. Then the clean laundry would be brought back via the loading dock at the kitchen area. This protocol, if still in place in case of future such incidents, is woefully lacking in detail regarding soiled laundry being brought through the kitchen area to the food facility loading dock. The laundry as stated would be picked up by the food vendor CBM. It does not state if separate vehicles were to be used for the transportation of soiled laundry and food items. There are no instructions mandating the cleaning and sanitizing of the transportation vehicle in between food and soiled laundry transportation. Clean linen should never cross over soiled areas and foods should not cross over areas where soiled laundry is stored in this facility unless the items are fully protected. When these situations occur, a proper protocol for sanitizing the loading dock area, the soiled laundry carts, and the transportation vehicle during such events must be developed with adequate forethought and not spur of the moment thinking and even worse spur of the moment actions. The medical personnel and health department Sanitarians should be contacted so that proper infection control principles can be written into any such protocol or SOP.



G. Inadequate Kitchen Sanitary Conditions.

1. It was noted that cleaning and sanitizing practices were inadequate for food safety purposes. This includes the three compartment sink operation, automatic tray/dish washing machine operation, the cleaning in place of the large mixers and food processing equipment found in this kitchen facility, refrigeration units, and all food contact surfaces. This also includes the floors, walls and even the ceilings in the kitchen and the large walk-in refrigeration units. It should include the loading dock and surrounding areas and equipment.
2. The Uni-Pac Learning Module #2B, Food Service Sanitation Machine Ware Washing (CITY\_0007406-0007425) was reviewed and it did not include kitchen Sanitation or Housekeeping items. It is unclear from the records whether this module was ever used, who was trained using it, the extent of the training, or whether this training has been periodically updated and refresher training for kitchen personnel and inmate food workers provided.
3. Any such training should include proper food storage, sanitation requirements for cooking areas as well as any food dining areas, as well as proper food holding and transportation practices such as temperature control and food protection methods.
4. The conditions and practices I observed during my inspection indicate that if there is actually a Certified Food Service Person at this kitchen facility, they need a full retraining and certification course. This retraining is necessary in order to learn how to properly run such an operation that protects the health of the inmates who must eat the foods produced at this facility. This is stated because of the very poor food safety and sanitation practices I observed during my inspection.
5. I was not able because of time constraints to determine if a problem that occurred in June of 2016 had ever been fully corrected (CITY\_00027479). Apparently, something happened to the hot water system that supplied high temperature hot water to the kitchen and laundry. The facility, as per Gary Wilson of St. Louis Department of Corrections, Building Maintenance & Operations Supervisor, had hired a plumbing contractor to replace a defective valve necessary to allow them to run the laundry and food service off the domestic hot water supply. His statement was "So they have water but not as hot as normal." Domestic water supply temperatures are normally in the range of 120 +/- 5 degrees Fahrenheit. This means that the laundry washing machines and the automatic dishwasher in the kitchen would only be provided water at or about 120-130 degrees Fahrenheit to clean and sanitize clothes and food equipment and utensils. This does not meet Health Department /FDA Food Code Standards sanitizing hot water temperature requirements. This seems short-sighted on the part of this facility unless chemical sanitization or a supplemental booster heater is provided for the

automatic dishwasher so as to provide 180 degrees Fahrenheit final rinse water, or it should be noted that the dishes and trays are not going to be properly sanitized by the automatic dishwasher thereby jeopardizing the health of the inmates. The Laundry could no longer assure that they could properly clean the clothing, bedding and linens so they would be safe for inmate use as they would not have 160+ degrees Fahrenheit water as per APHA standards. Instead of correcting the problem for whatever reason, this plan was made to just give these places water despite what the temperature requirements were in the laundry and kitchen. I could not determine from the documentation I reviewed how long this event lasted and if proper precautions to assure proper sanitizations of food utensils and the laundry was implemented.

H. Proper separation distances between bunks in dormitories for disease transmission prevention purposes.

1. For adequate and proper communicable disease control measures in the dormitory units, all beds should be separated by 6 feet of centerline of the bunks and beds in these areas. This will not prevent all airborne disease transmission situations but will help control them. This was not the case in several of the dorm areas I inspected.
2. Proper ventilation, which did not exist in many housing units (dorms and cells) will also help in the control of airborne disease transmission. At the time of my inspection, the ventilation system was at best a hit-or-miss operation as indicated in my report. The exhaust system in the toilet and shower areas in the dorms and cell housing units, were all but non-existent. Ventilation in cells was not adequate in many areas.

I. Bloodborne Pathogen Plan.

1. An infection Control Policy (CITY\_23795- 23798) was reviewed but it was not very specific in various areas. This Bloodborne Pathogen (BBP) Control Plan must be specific enough that all personnel with possible bloodborne pathogen exposure will know what to do in case of a BBP event. All potentially exposed employees must be trained initially, and annually thereafter so as not to needlessly expose themselves and others to bloodborne diseases. This plan must include readily available provisions needed for dealing with a possible bloodborne pathogen exposure including personal protective equipment such as fluid resistant disposable gloves, masks, and eye protection as well as an absorbent material, appropriately labeled plastic bags and waste disposal containers, and an effective EPA approved sanitizing agent. Instructions on how to use the materials and how to handle various types of BBP exposure events must be provided. This includes but is not limited to linens, clothing, bedding and mattresses that has been contaminated with feces, vomitus, blood and other bodily fluids. The proper handling and disposal of contaminated materials must

be understood and implemented by trained staff and most of all line officers who have a higher risk of potential exposure to blood and other bodily fluids. All training must be documented, and records kept for future referrals.

2. The plan must include provision for hepatitis vaccines to be provided for those so exposed to blood and bodily fluids. This is a CDC recommendation and OSHA requirement.

J. Inmate Clothing

Inmate Clothing Policy 4.3.4 (CITY\_0005757-0005762), the Inmate Handbook (CITY\_00022104-00022134), and The Inmate Handbook Policy# 3.3.1 (CITY\_0006501-0006503) as written are confusing at best. Facilities Services Policy # 4.3.4 (CITY\_0005761) indicates that inmates receive 2 (two) complete sets of clean clothing per week and are able to exchange them at least weekly. The above referenced policy is in conflict with a copy of a revised Inmate Handbook (22104-22134) where on page 8 (00022111) it incorrectly states that: **2 complete sets of clothing** are being provided as per this Inmate Handbook when in fact this is not true as the Revised Handbook states that as only one pair of socks and one T-shirt are provided). (see item 1 below)

1. The following items were noted as clothing provided by the Workhouse to the new inmates upon processing “in” to the correctional facility:
  - a. 2 uniforms
  - b. 1 pair of socks
  - c. 1 pair of tennis shoes
  - d. 1 T-shirt and two bras for females only.
  - e. 2 Pair of briefs or panties (female only)
  - f. 1 blanket and 2 sheets
  - g. 1 towel, 1 washcloth, 1 toothbrush and 1 tube of toothpaste
  - g. 1 bar of soap, 1 deodorant and 1 inmate handbook
2. If only one of the clothing items is provided, this means inmates will only be able to wear an outer uniform, briefs or boxers, and shoes while awaiting clothes to be returned from the laundry. The Inmate Handbook Policy (CITY\_00022104-00022134) states that only 2 pair briefs will be issued and the Clothing Policy # 4.3.4 states that three pairs of boxers will be issued. Again, there is an inconsistency issue due to conflicting policy and handbook instructions. Further, as stated in item 3 below, neither of these documents meets ACA or APHA Standards.

3. Please note that the APHA Standard clearly states that prisoners must have “three complete changes of clothing weekly.” It further states that washable clothing must be laundered at least once a week. This is not possible even if they were provided with an actual “2 complete sets of clothing” which in reality is not provided as per the revised Inmate Handbook. ACA Standards state that inmates are to be provided the opportunity to have three complete sets of clean clothing per week. Being provided only two complete sets of clothing and only once a week laundry cleaning service does not appear to provide inmates with three complete sets of clean clothing per week. ACA states that there is to be a provision for bed linen exchange, which as I see the policy, including blankets and towels at least weekly. The Workhouse Clothing Policy # 4.3.4, however, states that blankets can be laundered or exchanged at least once every month.
3. Inmates can purchase additional clothing items and keep them in their cells or dorm. By doing so they may have adequate clothing to wear when they send their clothing to be cleaned in the laundry but not every inmate may be able to afford this as they may not have access to funds to buy extra clothing.
4. Shower shoes or shoes and socks.  
  
Shower shoes or shoes and socks must be worn as per the inmate handbook however the handbook does not include shower shoes as ones being issued to the inmates. Shoes and socks are issued.
5. One issued item to each inmate is a mattress. Physical Plant Policy # 2.4.4 (CITY\_0006436-0006452) states on pages 3 and on page 13 that mattresses issued to inmates will be sanitized immediately after use when inmates are released or going to court. The Correctional staff is responsible for supervising inmate workers in the sanitation of mattresses. Mattresses can be sanitized in a cell or in a dayroom. However, in a memorandum from Jeffery Carson dated September 14, 2016 (CITY\_00030499) it is stated that if an inmate leaves the building, the mattress goes to the laundry for sanitizing and is reissued when needed in the main building. Pods sanitize their own mattresses after each usage and before reissue and at least weekly. This issue appears to need clarification as varying instructions often leads to activities being done incorrectly or not at all.

K. Inadequate Housing Temperature and Humidity Controls:

1. The issue of inadequate temperature and humidity controls during the winter months and the life-threatening conditions of excessive heat in the summer months exhibited by the discussion of High Heat Index levels in this report is one that must be addressed by policy and actual practices including emergency measures initiated during high Heat Index periods.

2. The HVAC System Controls were said in an email dated November 14, 2018, to no longer be serviceable. (CITY 00027224). This means that there is no real properly operating HVAC System that can control temperature and humidity as required by ACA Standards. In another email (CITY\_00027222) from Commissioner Glass dated November 14, 2018 he stated that “it is impossible to maintain temps throughout the facility without the air flow controls.” Air handling units are items of priority that were itemized for Capital Expenditures in December of 2017 by the Commissioner of Corrections (CITY\_00024692-00024693) and again was noted in an email from Commissioner Glass dated March 13, 2018 (CITY\_00027211) where he stated that he had requested funds for air conditioning needs for FY19. However, there are areas of the Workhouse that had inadequate to no functioning air conditioning units when I made my inspection in October of 2018. As noted in the above referenced email, only manual transfer from heat in cold months to air conditioning in hot months and vice-versa is possible. Proper temperatures and humidity controls were not consistently evident during my inspection in 2018 which does not meet ACA Standards.

## SECTION 7. CONCLUSION

My observations of the conditions at the Workhouse are as follows:

- A. The facility is very old and has not been properly maintained. It will now take proper planning and sufficient dollars to bring this facility into compliance with current APHA, ACA, NFPA, OSHA, FDA, CDC Standards and regulations, state and local health codes, and industry standards. The lighting, ventilation, pest management, environmental temperature and humidity controls (air conditioning units and controls), roof replacement, fire sprinkler head replacement, shower, toilet, and lavatory replacement, plumbing system upgrade, detailed policy and procedures development with specific SOPs for clothing and housekeeping purposes and initial and recurring supervisory and line level correctional officer training with appropriate accountability are all items needing immediate updating and implementation in order to reduce the risk of disease and injury and provide a safe, healthy and sanitary environment for the inmates in this facility. While they are not comprehensive needs documents, the Department of Public Safety, St. Louis City Division of Corrections March 2017 Critical Items document and the Operational Assessment of the Medium Security Institution (known as the Workhouse) NIC Report can be used as starting points as to what needs to be done to plan to bring this facility into compliance with APHA, ACA and other building and fire codes.
- B. The dysfunctional HVAC system besides its effect on disease transmission is also responsible for causing a health risk to inmates due to this facility's inability to control high temperatures recorded by Workhouse facility during high temperature